

REMARKS

INTRODUCTION

Claims 1, 17, 35, 46, 54, and 66 are amended herein.

In view of the above, it is respectfully submitted that claims 1-3, 6-19, 22-39, 42-48, 51-56, 59-69 and 72 are currently pending in this application.

INFORMATION DISCLOSURE STATEMENT

On February 11, 2005, the Applicants submitted an Information Disclosure Statement (IDS) with two references, KR 2003-0083282 and JP 2002-92916, both with English abstract and a copy of a Notice of Office Action issued by the Korean Patent Office on November 11, 2004 with English translation.

In the September 20, 2005 Office Action, the Examiner considered both references, but did not consider the Korean Office Action issued on November 11, 2004.

In the March 17, 2006 Office Action, the Examiner reconsidered JP 2002-92916, but did not consider the Korean Office Action issued on November 11, 2004.

Copies of the Notice of Office Action issued by the Korean Patent Office on November 11, 2004 and the postcard for the IDS stamped on February 11, 2005 are resubmitted herein. Consideration of the Notice of Office Action issued by the Korean Patent Office is kindly requested.

REJECTION UNDER 35 U.S.C. §103(a)

In the Office Action, at page 2, item 2, the Examiner rejected claims 1-3, 6-16, 46-48, and 51-53 under 35 U.S.C. §103(a) as being unpatentable over Izuka, in view of Kasuga et al. (U.S. Patent No. 5,844,881 – hereinafter Kasuga).

Amended independent claims 1, 17, 35, and 46 recite, “a pair of magnetic circuits wherein a position of a neutral zone between a first magnet and a third magnet, a position of a neutral zone between a second magnet and a fourth magnet, and a magnetic flux intensity distribution having an asymmetric shape along a focusing direction are changeable in order to optimize a tracking sensitivity.”

On page 3 of the Office Action, the Examiner admits that Izuka fails to specifically disclose “wherein the position of the neutral zone between the first and third magnet parts and the position of the neutral zone between the second and forth magnet parts along the focusing

direction are changeable in order to optimize a tracking sensitivity.” Izuka also fails to teach or suggest, “a magnetic flux intensity distribution having an asymmetric shape” as recited in claims 1, 17, 35, 46, 54, and 66. In Figures 13, 19-23, 26 and 29, Izuka shows magnetic fluxes Bg1, Bg2 parallel to each other. Izuka states, “...the magnetic flux B_g emanated from the magnets 47, 48 ... in a direction parallel to the optical axis of the objective lens 21”(emphasis added, col. 16, lines 24-27). That is, in the present invention, the magnetic flux intensity distribution IB has an asymmetric shape in the focusing direction (Para. 51). Therefore, in the present invention, the magnetic flux can be increased or reduced by changing the position of the neutral zone nz.

Thus, Izuka teaches away from the limitations of the present invention.

On page 3, the Examiner asserts that Kasuga makes up for the deficiencies of Izuka. The Applicants respectfully submit that Kasuga fails to cure the deficiencies in Izuka. Although Kasuga discusses magnetic flux, this magnetic flux does not have “a magnetic flux intensity distribution having an asymmetric shape.” Kasuga shows in Figs. 8 and 9 diagonal lines representing a magnetic flux that are parallel to each other. Thus, Kasuga does not teach or suggest, “a magnetic flux intensity distribution having an asymmetric shape” as recited in claims 1, 17, 35, and 46.

Neither Izuka nor Kasuga, individually or combined, teach or suggest, “a magnetic flux intensity distribution having an asymmetric shape” as recited in independent claims 1, 17, 35, and 46.

In the Office Action, at page 5, item 13, the Examiner rejected claims 17-19, 22-39, 42-45, 54-56, 59-69, and 72 under 35 U.S.C. §103(a) as being unpatentable over Izuka, in view of Kasuga, in further view of Suzuki et al. (U.S. Patent No. 6,741,543 – hereinafter Suzuki).

Amended independent claims 1, 17, 35, 46, 54, and 66 recite, “a pair of magnetic circuits wherein a position of a neutral zone between a first magnet and a third magnet, a position of a neutral zone between a second magnet and a fourth magnet, and a magnetic flux intensity distribution having an asymmetric shape along a focusing direction are changeable in order to optimize a tracking sensitivity.”

The above comments for distinguishing over Izuka and Kasuga, either singularly or in combination, also apply here, where appropriate. On page 6, the Examiner asserts that Suzuki makes up for the deficiencies of Izuka and Kasuga. The Applicants respectfully submit that Suzuki fails to cure the deficiencies in Izuka and Kasuga. Although Kasuga discusses magnetic flux, this magnetic flux does not have “a magnetic flux intensity distribution having an asymmetric

shape." For example in col. 3, lines 9-16, Kasuga states:

The lens driving apparatus is also characterized in that the magnetic flux imparting means impart magnetic fluxes in directions opposite to each other to two areas of the coils divided by imaginary lines inclined relative to the directions of both focus and tracking. The lens driving apparatus is further characterized in that the imaginary lines of the pair of coils each are arranged symmetrically with respect to a plane including the axis.

In Figures 7A, 7B, and 7C, the circles each having a dot therein denote a magnetic flux penetrating from the reverse to the front side of the drawing, whereas the circles each having a cross therein denote a magnetic flux penetrating from the front to reverse side of the drawing (col. 12, lines 12-16). In addition, the arrows inside the drive coils 58a, 58b denote the direction of the currents flowing through the drive coils 58a, 58b, while the blank arrows in the figure denote partial drive forces of the drive coils 58a, 58b (col. 12, lines 16-20). Suzuki shows magnetic fluxes that are symmetrical to each other. (See: Figs. 8A, 8B, 8C, 9A, 9B, 9C, 10A, 10B, 10C, 19A, 19B, and 19C). Suzuki fails to teach or suggest, "a magnetic flux intensity distribution having an asymmetric shape."

None of the prior art, individually or combined, teach or suggest, "a magnetic flux intensity distribution having an asymmetric shape" as recited in claims 1, 17, 35, 46, 54, and 66.

In view of the above, it is respectfully submitted that the rejection is overcome.

CONCLUSION

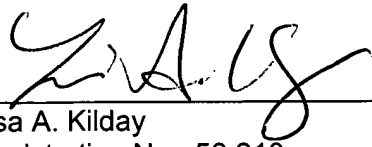
In view of the foregoing amendments and remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: 
Lisa A. Kilday
Registration No. 56,210

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501